

REMARKS

Claims 1, 4, 6-13, 15, 17-20, 22, 23, 25-29, 31-36, 38-41 and 43-45 are currently pending in this application. Claim 39 has been amended, and claim 16 has been cancelled. Applicants respectfully request the Examiner's thorough reconsideration of this application in view of the amendments and remarks presented herein, as well as those presented in the Amendment filed in this application on February 3, 2003.

I. Objection to the Specification

The Examiner objected to the last amendment filed in this application "because it introduces new matter into the disclosure." Specifically, the Examiner indicated that the addition of the term "substantially" to the disclosure is not supported because "[t]he original specification used the wording generally or nearly." Applicants respectfully traverse this rejection.

First, Applicants again point out that the figures originally filed in this application support the addition of "substantially" to the specification. In particular, originally filed Figures 1, 3, 5, 8, 9 and 10 all show a barrel having a first cross-section that is "substantially square" or "substantially rectangular", as those terms are used in the context of the present invention (e.g., nearly or perfectly square or rectangular). Applicants note that a square is one type of a rectangle. In addition, originally filed Figure 5 shows a barrel having second cross-section that is "substantially circular" as represented by dashed line 24. It is well established that the original figures of an application alone may provide sufficient disclosure of the applicant's invention. *See* MPEP § 608.01(I).

Applicants also point to the originally filed specification and claims for support of the modifier "substantially." Applicants respectfully submit that the original language in the specification, "nearly circular" is consistent with the amended language "substantially circular" as used in the context of the present invention. Also, at least original claims 14 and 20 recite that the "first cross-section is substantially square." It is well established that the original claims alone may provide sufficient disclosure of the applicant's invention. *See id.*

Based on the foregoing, Applicants respectfully submit that no new matter was added by the previous amendment in this application, and accordingly, request that the Examiner's objection be withdrawn.

II. Claim Rejections Under 35 U.S.C. § 112

The Examiner rejected claims 1, 4, 6-13, 15-18, 29, 34-36, 38-41, 43 and 44 under 35 U.S.C. § 112, first paragraph, for lack of written description. Applicants respectfully request that the Examiner reconsider these rejections in view of the previous amendment filed in this application, and in view of the remarks provided herein.

Regarding claims 1 and 34, the Examiner stated that it has not been adequately disclosed how the indentation is substantially v-shaped in a plane extending substantially parallel to the longitudinal axis. Applicants respectfully disagree. Referring to Figure 7, which is a diagonal cross-section taken along a plane substantially parallel to the longitudinal axis of the barrel, the indentation is shown as substantially v-shaped.

Regarding claims 4 and 10, the Examiner stated that it has not been adequately disclosed how the sidewall section defines a substantially rectangular cross-section; and regarding claims 13, 38 and 44, the Examiner stated that it has not been adequately disclosed how the sidewall section defines a substantially square cross-section. First, Applicants note that a square is one type of a rectangular. Moreover, originally filed Figures 1, 3, 5, 8, 9 and 10 all show a barrel having a first cross-section that is "substantially square" or "substantially rectangular", as those terms are used in the context of the present invention (e.g., nearly or perfectly square or rectangular).

Regarding claims 4, 10, 15, 38 and 44, the Examiner stated that it has not been adequately disclosed how the first indentation defines a substantially circular cross-section. Applicants again direct the Examiner's attention to originally filed Figure 5, which shows a barrel having second cross-section that is "substantially circular," as shown by dashed line 24. Applicants also submit that the original language in the specification, "nearly circular" is consistent with the amended language "substantially circular," as used in the context of these claims.

Regarding claim 39, the Examiner stated that it has not been disclosed how the indentation is "substantially intermediate the end walls." Applicants agree with the Examiner's interpretation of the claim language "intermediate the end walls" as meaning at any point between the end walls, and accordingly, have amended these claims to delete the word "substantially."

Regarding claims 1, 15, 36 and 43, the Examiner stated that it was not adequately disclosed how the indentation is "substantially V-shaped." Applicants respectfully disagree and again direct the Examiner's attention to the right side of Figure 4 as originally filed (now Figure 4B), where the indentation is V-shaped with slightly rounded corners, or

"substantially V-shaped." The "substantially V-shaped" language is also intended to encompass other variations of the indentation that are perfectly or nearly V-shaped.

Claim 16 has been cancelled.

In view of the above, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

Claims 4, 10-13, 15, 16, 36, 38, 43 and 44 were rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. Applicants respectfully request that the Examiner reconsider these rejections in view of the previous amendment filed in this application, and in view of the remarks provided herein.

Regarding claims 4, 10, 38 and 44, the Examiner stated it is unclear how the cross-section is substantially circular in the drawings, because "at the indentation [it] has flat areas where it meets the sidewalls." Applicants respectfully submit that the indentation does not necessarily have to have "flat areas" where the indentation "meets the sidewalls." Referring to Figure 5, an embodiment of the invention is shown where the indentation defines a cross-section without any such flat areas (refer to reference number 24). Nevertheless, the word "substantially" is intended to modify the claim to include, in addition to a perfectly circular cross-section, an embodiment where the cross-section is not necessarily perfectly circular, but rather includes minor flat areas or other variations from perfectly circular.

Regarding claims 1, 15, 36 and 43, the Examiner stated that it is not clear what is required by the limitation "substantially V-shaped." Applicants respectfully direct the Examiner's attention to the right side of Figure 4 as originally filed (now Figure 4B), where a substantially V-shaped indentation is shown. The "substantially V-shaped" language is intended to cover indentions that are perfectly V-shaped, as well as variations that are nearly V-shaped, such as those having a radius of curvature where the branches of the "V" join together.

The Examiner stated that claim 13 is unclear how the first cross-section is substantially square since the corners are rounded [in the figures]. The rounded corners, and other deviations from a perfectly square cross-section are exactly what is intended to be covered by the "substantially square" limitation. That is, the language covers a cross-section that is perfectly square and well as minor deviations from perfectly square, such as the rounded corners shown in Figure 5.

Claim 16 has been cancelled.

In view of the above, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 112, second paragraph.

III. Claim Rejections Under 35 U.S.C. § 102

Claims 10-13, 17 and 18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,780,899 to Roper ("Roper '899"). Applicants respectfully traverse this rejection. Roper '899 does not disclose or suggest a second cross-section that is substantially circular, as recited by independent claim 10. Rather, both the rectangular body section and the recess of Roper '899 have *rectangular* cross-sections with rounded corners. Applicants respectfully submit that the *rectangular* cross-sections of Roper could not possibly be considered "substantially circular" in the context of the claims and specification of the present invention. Thus, Applicants respectfully submit that claim 10 and its dependent claims are patentable over Roper '899.

IV. Claim Rejections Under 35 U.S.C. § 103

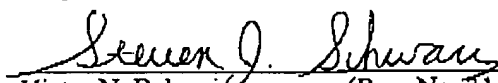
Claims 10-13, 16, 17, 18, 34, 35, 38, 39-41, 43, 44 and 45 were rejected under 35 U.S.C. § 103 as being obvious over DE '722 in view of Virgo, Jr. et al. Applicants respectfully traverse this rejection. The Examiner has completely failed to provide any motivation or suggestion in the prior art to combine these references, as is explained in detail in section IV of the previously filed amendment, which is incorporated herein by reference.

Claims 1, 4, 6, 8-13, 15, 16, 17, 18, 19, 29, 34-36 and 38 were rejected under 35 U.S.C. § 103 as being obvious over DE '722 in view of Sugiura. Applicants respectfully traverse this rejection. The Examiner has completely failed to provide any motivation or suggestion in the prior art to combine these references, as is explained in detail in section IV of the previously filed amendment, which is incorporated herein by reference.

In light of the above amendments and remarks, the Applicants respectfully request that the Examiner reconsider this application with a view towards allowance. The Examiner is invited to call the undersigned attorney if a telephone call could help resolve any remaining items.

Respectfully submitted,

Date: December 24, 2003


Victor N. Balancia (Reg. No. 31,231)
By: Steven J. Schwarz (Reg. No. 47,070)
PENNIE & EDMONDS LLP
1667 K Street, N.W.
Washington, D.C. 20006
(202) 496-4400